ABSTRACT

An exercise machine has a main frame with a pivot mount, a user support frame pivotally mounted on the pivot mount, the pivot mount defining a vertical, gravitational center line, an exercise arm movably mounted for engagement by the user in performing exercises, a connecting link linking movement of the exercise arm to movement of the user support frame, and a load for resisting movement of at least one of the moving parts. Movement of the user engagement device in an exercise movement simultaneously moves the user support frame between a start and an end position, the pivot mount being positioned at a predetermined location under the user support frame, such that portions of the combined weight of the user and user support frame are distributed on each side of the gravitational centerline throughout the entire exercise movement and only a portion of the combined weight passes through the gravitational centerline during the exercise movement.